

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte GARY P. COTE

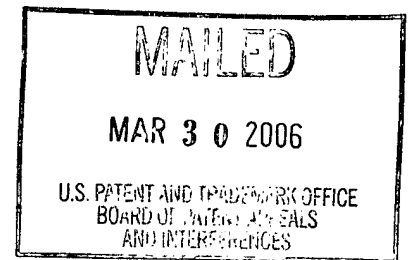
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Appeal No. 2005-2398  
Application No. 09/899,029<sup>1</sup>

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ON BRIEF

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Before KIMLIN, PAK, and KRATZ, Administrative Patent Judges.

PAK, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's refusal to allow claims 3 through 15, 25, 26, 28, 31 through 36 and 39 through 47.<sup>2</sup> Claims 17, 18, 37 and 38 were objected to as being dependent on a rejected base claim, but were indicated to be allowable if rewritten in independent form, including all the

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<sup>1</sup>Application for patent filed July 6, 2001, entitled, Wheelbarrow braking system.

<sup>2</sup> The appellant inadvertently states at page 1 of the Brief that claim 16 was finally rejected. The record indicates that claim 16 was withdrawn from consideration by the examiner. See the final Office action dated November 5, 2002.

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limitations of the base claim and any intervening claims. We have jurisdiction pursuant to 35 U.S.C. § 134.

APPEALED SUBJECT MATTER

The subject matter on appeal is generally directed to a braking apparatus and more particularly directed to a wheelbarrow braking apparatus. See claims 31, 46 and 47. Further details of the appealed subject matter are recited in representative claims 31, 46 and 47 which are reproduced below<sup>3</sup>:

31. Braking apparatus comprising a braking mechanism including a brake, a twist-type handle and a brake cable connecting the twist-type handle and the brake, wherein the handle is twistable to a plurality of positions for controlling speeds of movement of vehicles coupled to the braking mechanism.

46. Wheelbarrow braking apparatus for controlling speed of a wheelbarrow comprising a wheelbarrow having a frame, a load-carrying box connected to the frame, first and second handlebars connected to the frame, an axle connected to the frame and a wheel on the axle, and further comprising a drum brake assembly having a brake drum on the wheel and a pair of spring-loaded brake shoes mounted inside the brake assembly for braking the wheel, a twist-type brake control handle mounted on one end of the first handlebar, a brake control bar connector connected to the brake shoes, and a control cable coupling the brake control bar connector and the twist-type brake control handle for activating the brake shoes and controlling movement of the wheelbarrow.

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<sup>3</sup> We will address the claims on appeal individually to the extent that the appellant has provided substantive arguments for his separate patentability consistent with 37 CFR § 1.192(c)(7) (2003) and 37 CFR § 41.37(c)(1)(vii)(2004). See also In re McDaniel, 293 F.3d 1379, 1384, 63 USPQ2d 1462, 1465-66 (Fed. Cir. 2002).

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47. Wheelbarrow braking apparatus for controlling speed of a wheelbarrow comprising a wheelbarrow having a frame, a load-carrying box connected to the frame, first and second handlebars connected to the frame, an axle connected to the frame and a wheel on the axle, and further comprising a disc brake assembly having a brake disc on the wheel and a pair of spring-loaded brake calipers mounted outside the disc for braking the wheel, a twist-type brake control handle mounted on one end of the first handlebar, a brake control bar connector connected to the brake calipers, and a control cable coupling the brake control bar connector and the twist-type brake control handle for activating the brake calipers and controlling movement of the wheelbarrow.

#### PRIOR ART

The prior art references relied upon by the examiner in support of the Sections 102(b) and 103(a) rejection before us are:

Krauer et al. (Krauer)	4,966,047	Oct. 30, 1990
Miyazaki et al. (Miyazaki)	6,173,799 B1	Jan. 16, 2001 (Filed Oct. 26, 1998)

#### REJECTIONS

The appealed claims stand rejected as follows:

1. Claims 31 through 34 under 35 U.S.C. § 102(b) as anticipated by the disclosure of Krauer; and
2. Claims 3 through 15, 25, 26, 28, 35, 36 and 39 through 47 under 35 U.S.C. § 103(a) as unpatentable over the combined

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disclosures of Miyazaki and Krauer.<sup>4</sup>

#### DISCUSSION

We have carefully reviewed the claims, specification and prior art, including all of the arguments advanced by both the examiner and the appellant in support of their respective positions. As result of this careful review, we have reached the determinations which follow.

#### ANTICIPATION

Under Section 102(b), an anticipation is established only when a single prior art reference discloses, either expressly or under the principles of inherency, each and every element of a claimed invention. See In re Spada, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990); RCA Corp. v. Applied Digital Data Systems, Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984). In other words, the law of anticipation only requires that the claims on appeal "read on" something disclosed in the prior art reference. See Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983). It does not

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<sup>4</sup>As is apparent from the final Office action dated November 5, 2002, and the appellant's brief, claim 28 was also finally rejected under Section 103(a) as unpatentable over the combined disclosures of Miyazaki and Krauer.

require that the prior art reference teach the embodiments and/or purposes described in the specification. Id.

Here, we find that Krauer teaches "a brake cable control which includes a twist grip brake control handle mounted to an end of a bicycle handlebar which enables rapid activation of the brakes with minimum effort." See column 2, lines 19-25, together with Figures 4-6. We find that Krauer also teaches "[i]n a preferred embodiment, an insert portion of a rotatable hand grip and fitting supporting the cable in the handlebar member are provided with complementary angle surfaces which, when rotated relative to each other, pull the cable a specified distance to activate the brakes without exerting undue bending stress on the cable." See column 2, lines 43-49. We find that Krauer further teaches (column 7, lines 14-35) that:

Referring now to FIG. 12, once the rider wishes to engage the brakes, the handle member 48' is rotated axially about the handlebar 34. The greater the arc of rotation, the greater separation will be created between the fitting 130 and the insert 144 due to the reorientation of the angled surfaces 134 and 148, which causes axial displacement of the handle member 48' in the direction indicated generally by the arrow 166. Accordingly, the greater the amount of rotation, the greater will be the pulling force exerted on the brake 44 through the extension of the cable 56. The greatest axial displacement will occur upon a rotation of 180° from the at rest position, however, depending upon the adjustment of the brakes 44, less than 180° of rotation of the handle member 48' may be necessary to exert full

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braking force. Regardless of the amount of rotation force exerted on the handle member 48', the angled surfaces 134 and 148 will always be in contact to some extent. Once the pressure on the handle member 48' is released, the control 47' will resume the at rest position depicted in FIG. 11 due to the spring action of the brakes 44 and the brakes will be released.

In view of the foregoing, we concur with the examiner that Krauer would have rendered the subject matter defined by claims 31, 32 and 34 anticipated within the meaning of 35 U.S.C. § 102(b). Accordingly, we affirm the examiner's decision rejecting claims 31, 32 and 34 under Section 102(b).

Claim 33, however, is on different footing. Although Krauer would have suggested employing a twist-type handle capable of stopping a vehicle upon a quarter turn of the handle (less than 180° of rotation of the handle member as indicated supra), it does not teach such handle with sufficient specificity to constitute a description within the meaning of Section 102(b). In re Schaumann, 572 F.2d 312, 316, 197 USPQ 5, 8-9 (CCPA 1978); In re Arkley, 455 F.2d 586, 589, 172 USPQ 524, 527 (CCPA 1972).

It follows that the examiner's decision rejecting claim 33 under Section 102(b) is reversed.

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### OBVIOUSNESS

Under Section 103, the obviousness of an invention cannot be established by combining the teachings of the prior art references absent some teaching, suggestion or incentive supporting the combination. ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). This does not mean that the prior art references must specifically suggest making the combination. B.F. Goodrich Co. V. Aircraft Braking Systems Corp., 72 F.3d 1577, 1582, 37 USPQ2d 1314, 1318 (Fed. Cir. 1996); In re Nilssen, 851 F.2d 1401, 1403, 7 USPQ2d 1500, 1502 (Fed. Cir. 1988)). Rather, the test for obviousness is what the combined teachings of the prior art references as a whole would have fairly suggested to those of ordinary skill in the art. In re Young, 927 F.2d 588, 591, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991); In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). This test requires us to take into account not only the specific teachings of the prior art references, but also any inferences which one skilled in the art would reasonably be expected to draw therefrom. In re Preda, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968).

Here, the appellant does not dispute that Miyazaki teaches a motor-assisted single-wheel cart<sup>5</sup> having a frame, a load-carrying box, first and second handlebars, an axle and a wheel, which are connected in the claimed manner. Compare the Answer with the Brief and the Reply Brief in their entirety. Rather, the appellant argues that the combined disclosures of Miyazaki and Krauer would not have suggested employing the twist-type brake control handle and drum brake assembly recited in claim 46. See, e.g., the Brief, pages 12-14. We do not agree.

As correctly found by the examiner (the Answer, pages 4-5), Miyazaki teaches in relevant parts (column 11, lines 4-10 and column 12, lines 13-28):

The first speed reduction mechanism 50 is provided with a brake mechanism 70 for braking the rotation of the middle shaft 54. The brake mechanism 70 is constituted by a combination of a brake cover 71 mounted to the lid 59 by a bolt B1 and a brake drum 77 mounted to an end of the middle shaft 54, however, the detailed structure will be described with reference to FIG. 7.

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FIG. 7 is an exploded perspective view which shows a brake mechanism 70 in the first speed reduction mechanism.

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<sup>5</sup> According to Miyazaki (column 1, lines 5-17), its "invention relates generally to a single-wheel cart and, more particularly, to a motor-assisted single-wheel cart... A hand-pushed single-wheel cart, also called a wheelbarrow, is used at various places including construction spots..."



The brake mechanism 70 corresponds to a diameter expansion type drum brake. The brake mechanism 70 is constituted by a brake cover 71, brake shoes 73 and 73 with brake pads mounted to the brake cover 71 through a bush 72, a cam 74 expanding the diameters of the brake shoes 73 and 73, a cam lever 75 rotating the cam 74, a brake cable 76 drawing the cam lever 75, a brake drum 77 surrounding the brake shoes 73 and 73, and tensional springs 78 and 78 compressing the diameters of the brake shoes 73 and 73. The brake cable 76 is connected to the brake lever 12 in FIG. 1.

A rotation of the brake drum 77 is braked by the brake shoes 73 and 73 by mounting the brake drum 77 to the middle shaft 54 shown in FIG. 6 and mounting the other brake cover 71 and the brake shoes 73 and 73 to the lid 59, so as to stop the motor-assigned single-wheel cart 1.

Although Miyazaki employs a brake lever 12, rather than a twist-type brake control handle, to pull a brake cable 76 to operate a brake drum, Krauer teaches that either a twist-type brake control handle or a lever-type brake control is known to be used with a brake cable to operate brakes. See column 1, lines 16-68 and column 7, lines 14-35. Krauer goes on to state disadvantages of using the lever-type brake control at column 1, lines 27-43, and recommend its improved "twist grip brake control handle" at column 2, lines 19-25. Krauer further teaches that this twist grip brake control handle, which is described in the context of a bicycle, can be used in "other cable operated devices, and more

particularly, to such a cable control mounted at the end of a handle-bar for coaxial rotation thereabout." See column 1, lines 11-15.

Given these teachings, we concur with the examiner that one of ordinary skill in the art would have been led to employ the twist-type brake control handle described in Krauer, in lieu of the lever-type brake control, to stop or control the speed of the wheelbarrow described in Miyazaki, motivated by a reasonable expectation of successfully avoiding the disadvantages associated with the lever-type brake control.

With respect to claim 28, the examiner takes official notice that two wheel wheelbarrows are known in the art. See the final Office action dated November 5, 2002, page 4. This assertion of official notice is taken consistent with the standard set forth in In re Ahler, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970). We accept this assertion to be facts since the appellant has not specifically challenged the official notice taken by the examiner. See 37 CFR § 1.111(b); see also In re Chevenard, 139 F.2d 711, 713, 60 USPQ 239, 241 (CCPA 1943). Since, as indicated supra, Miyzaki and Kruauer would have suggested employing a twist-type brake control handle with a brake drum to stop or control the speed of a conventional wheelbarrow, we concur with

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the examiner that it would have been obvious to do the same for the conventional two wheel wheelbarrow, motivated by a reasonable expectation of successfully stopping or controlling the speed of the conventional two wheel wheelbarrow.

With respect to claims 39 through 42 and 45, the examiner again takes official notice that the claimed drum brakes and wheelbarrows are known in the art. See the final Office action dated November 5, 2002, pages 5-6. This assertion of official notice is also taken consistent with the standard set forth in Ahler, 424 F.2d at 1091, 165 USPQ at 420. We accept this assertion to be facts as well since the appellant has not specifically challenged the official notice taken by the examiner. See 37 CFR § 1.111(b); see also Chevenard, 139 F.2d at 713, 60 USPQ at 241. In any event, we note that Miyazaki teaches employing the claimed drum brakes to control the speed of the wheelbarrow as indicated supra. Thus, for the reasons set forth above, we concur with the examiner that it would have been obvious to employ the claimed drum brakes with a twist-type brake control handle to stop or control the speed of the wheelbarrow of the type discussed in Miyazaki.

In view of the foregoing, we concur with the examiner that the combined disclosures of Miyazaki and Krauer would have

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rendered the subject matter defined by claims 3 through 15, 28, 39 through 42, 45 and 46 obvious within the meaning of 35 U.S.C. § 103(a). Accordingly, we affirm the examiner's decision rejecting the same under Section 103(a).

With respect to claims 25, 26, 35, 36, 43, 44 and 47, they are on different footing. We note that the examiner has not established that a clipper for locking the handle at desired positions, as recited in claims 35 and 36, is known.<sup>6</sup> Nor has the examiner established that the conventional wheel disc brakes recited in claims 25, 26, 43, 44 and 47 are known to be used with wheelbarrows and/or brake cables and lever-type or twist-type brake control handles.<sup>7</sup>

Thus, we concur with the appellant that the examiner has not provided a sufficient factual basis to demonstrate obviousness of the subject matter defined by claims 25, 26, 35, 36 43, 44 and 47

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<sup>6</sup> The examiner refers to U.S. Patent 3,950,005 issued Patterson to show obviousness of employing the claimed clipper in a parking brake means. However, the examiner has not included Patterson in the statement of rejection. As such, we cannot consider this reference in the context of the present rejection. In re Hoch, 428 F.2d 1341, 1342 n.3, 166 USPQ 406, 407 n.3 (CCPA 1970)("[W]here a reference is relied on to support a rejection, whether or not in a 'minor capacity,' there would appear to be no excuse for not positively including the reference in the statement of the rejection.")

<sup>7</sup> The examiner refers to U.S. Patent 5,690,191 issued to Burbank to show obviousness of using the claimed disc brake with a wheelbarrow. Again, we decline to consider Burbank since it is not included in the statement of rejection.

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within the meaning of Section 103(a). Accordingly, we reverse the examiner's decision rejecting claims 25, 26, 35, 36, 43, 44 and 47 under 35 U.S.C. § 103(a).

#### NEW REJECTION

Pursuant to 37 CFR § 41.50(b)(2004), we enter a new ground of rejection against claim 33.

Claim 33 is rejected under 35 U.S.C. § 103(a) as unpatentable over the disclosure of Krauer. The content of the Krauer reference is discussed above. Although Krauer does not specifically mention that the twist-type brake control handle is capable of stopping a vehicle upon making a quarter turn of the handle, it teaches that 180° of rotation or less than 180° of rotation of the handle member (inclusive of the claimed quarter turn of the handle) may be used to exert full braking force, i.e., stop a bicycle (vehicle) as indicated supra,.

Thus, we determine that it can be inferred from Krauer that it is well within the ambit of one of ordinary skill in the art to make an appropriate adjustment to brakes so that a twist-type brake control handle can exert full braking force via workable or optimum rotation such as that claimed. See, e.g., In re Boesch, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980). It follows that Krauer would have rendered the claimed functionally defined

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twist-type handle obvious to one of ordinary skill in the art within the meaning of 35 U.S.C. § 103(a).

#### REMAND

As indicated supra, the examiner cannot rely on U.S. Patent 3,950,005 issued to Patterson and U.S. Patent 5,690,191 issued to Burbank to support the Section 103 rejection of record since they are not positively included in the statement of the rejection. Thus, upon return of this application, the examiner is to include these references in the statement of rejection if the combined disclosures of Miyazaki, Krauer, Patterson and Burbank affect the patentability of claims 25, 26, 35, 36, 43, 44 and 47. Should the examiner decide to reject claims 25, 26, 35, 36, 43, 44 and 47 in view of the above references, prosecution of this application must be reopened.

#### CONCLUSION

In view of the foregoing, we:

1) Affirm the examiner's decision rejecting claims 31, 32 and 34 under 35 U.S.C. § 102(b) and claims 3 through 15, 28, 39 through 42, 45 and 46 under 35 U.S.C. § 103(a);

2) Reverse the examiner's decision rejection claim 33, 35 U.S.C. § 102(b) and claims 25, 26, 35, 36, 43, 44 and 47 under 35 U.S.C. § 103(a);

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3) Enter a new ground of rejection against claim 33; and

4) Remand the application to the examiner to consider the effect of including Patterson and Burbank in the statement of rejection.

Regarding any affirmed rejection, 37 CFR § 41.52(a)(1) provides "[a]ppellant may file a single request for rehearing within two months from the date of the original decision of the Board."

In addition to affirming the examiner's rejection of one or more claims, this opinion contains a new ground of rejection pursuant to 37 CFR § 41.50(b) and a remand pursuant to 37 CFR § 41.50(e) (effective September 13, 2004, 69 Fed. Reg. 49960 (August 12, 2004), 1286 Off. Gaz. Pat. Office 21 (September 7, 2004)).

37 CFR § 41.50(b) provides "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review." 37 CFR § 41.50(e) provides that

[w]hensoever a decision of the Board includes a remand, that decision shall not be considered final for judicial review. When appropriate, upon conclusion of proceedings on remand before the examiner, the Board may enter an order otherwise making its decision final for judicial review.

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37 CFR § 41.50(b) also provides that the appellant,  
WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise  
one of the following two options with respect to the new ground  
of rejection to avoid termination of the appeal as to the  
rejected claims:

(1) Reopen prosecution. Submit an appropriate  
amendment of the claims so rejected or new evidence  
relating to the claims so rejected, or both, and have  
the matter reconsidered by the examiner, in which event  
the proceeding will be remanded to the examiner. . . .

(2) Request rehearing. Request that the  
proceeding be reheard under § 41.52 by the Board upon  
the same record. . . .

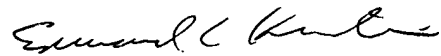
The effective date of the affirmance is deferred until  
conclusion of the proceedings before the examiner unless, as a  
mere incident to the limited proceedings, the affirmed rejection  
is overcome. If the proceedings before the examiner do not  
result in allowance of the application, abandonment or a second  
appeal, this case should be returned to the Board of Patent  
Appeals and Interferences for final action on the affirmed  
rejections, including any timely request for rehearing thereof.



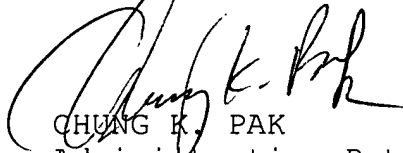
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No time period for taking any subsequent action in  
connection with this appeal may be extended under 37 CFR  
§ 1.136(a).

AFFIRMED-IN-PART/\$41.50(b)/REMANDED

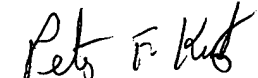


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